

**ACCESSIBILITY CORRECTION LIST**  
**(2002 North Carolina Accessibility Code with 2004 Amendments and 2003 NFPA 101)**

**PLEASE NOTE:** Circled items require correction by revised plans, addenda, field orders, or change orders before plans can be approved for construction. Answers in letterform **are not** acceptable. Starting construction before plans approval may be considered as just cause, by the State, to issue a **stop work** order. [Rule 0780-2-3-.05] Issues of conflict between the Life Safety Code (NFPA 101 2003 edition) and the building code (SBC 1999 edition) will be resolved by accepting only the most stringent. [Rule 0780-2-2-.04]

**I. EGRESS – NFPA 101 and SBC 1004**

1. Areas accessible to people with severe mobility impairments other than existing buildings shall not have less than two accessible means of egress. [NFPA 101 7.5.4.1 and SBC 1004.3.1] One accessible means of egress will be permitted for where a single means of egress is permitted for the general occupancy load. [NFPA 101 7.5.4.1.2 and SBC 1004.3.1]
2. Each required means of egress must be continuous and accessible through to the public way including sidewalks, ramps, exit stairs, horizontal exits, etc. [NFPA 101 7.5.4.3 and SBC 1004.3.2]
3. *On the level of exit discharge, all means of egress provided shall be accessible* through to the public way including sidewalks, ramps, exit stairs, horizontal exits, etc. [NFPA 101 7.5.4.3, SBC 1004.3.2, and NCAC 6.3.1]
4. When accessible exits are required to be placed 1/2 the diagonal dimension apart by NFPA 101 7.5.4.2 and/or SBC 1004.1.4, separation must be provided to reduce the possibility that both can be blocked by a single fire or emergency event. [NFPA 101 7.5.4.3.2 and SBC 1004.1.4 ]
5. At least one accessible exit or area of refuge must exist within the travel distance providing an accessible route to an exit discharge. [NFPA 101 7.5.4.1.1, SBC 1004.3.5.1, and SBC 1004.1.1]

**II. SITE ACCESS - NCAC 3.0**

1. Existing buildings other than change of occupancy shall have no less than one accessible route. [NCAC 3.1]
2. The slope of a walk may not exceed 5% (1 in 20 feet). If handrails are provided, the slope may be 8.33% (1 in 12 feet). The walk must have a continuous common surface not interrupted by steps or abrupt changes in grade level greater than ¼ inch. [NCAC 3.3.2 and 3.3.3]
3. A sidewalk may not have a cross slope greater than a 1/4 inch per foot. [NCAC 3.3.2]
4. Provide one accessible parking space for each 25 spaces up to 100 total (4%). See Table 4.2.1 for larger lots. [NCAC 4.2.1]

5. Parking spaces must be a minimum of 96 inches wide with a 60-inch access aisle and above ground sign. [NCAC 4.4.1] Show space dimensions and sign location on plans.
6. If parking lots are provided, they must have designated handicapped parking spaces and must be within 200 feet of an accessible entrance. [NCAC 4.1.1 and 4.6.1]
7. The clear width of walks is 48 inches. [NCAC 3.2.1]

### **III. RAMP - NCAC 5.1**

1. The maximum slope of a ramp may not exceed 1 in 12. [NCAC 5.2.1]
2. Exterior ramps must have a minimum clear width (handrail to handrail) of 48 inches. Interior ramps or ramps in renovation projects must have a minimum clear width of 36 inches. [NCAC 5.2.3]
3. Ramps may not rise more than 30 inches without an intermediate landing. [NCAC 5.3.1]
4. Landings at top and bottom of ramps must be as wide as the ramp (minimum) by 60 inches (NCAC requires 60 inch minimum at top). [NCAC 5.3.3]
5. Ramps at changes of directions must be a minimum of 60" by 60" (NCAC considers ramps to terminate at change of directions). [NCAC 5.3.5]
6. Ramp handrails required when:
  - 6.1 Ramps must have handrails along both sides of a ramp with a rise in excess of 6". [NFPA 101 7.2.5.4 and NCAC 5.4.1]
  - 6.2 Ramps steeper than 1 to 20 must have handrails along both sides of a ramp with a rise in excess of 6". [SBC 1013.7 Exception 1]
7. Ramp handrails must be:
  - 7.1 Mounted 34" (minimum/maximum) for new handrails above walking surface with a 12-inch horizontal extension at the top and bottom landings. [NFPA 101 7.2.2.4.4.1, 7.2.2.4.4.2, SBC 1007.5.1, SBC 1007.5.5, and NCAC 5.4.2(2) and (3)]
8. Ramp handrails that end at corridors, hallways, etc. must not extend more than 3 ½ inches into the passageway. [NCAC 5.4.2(7)]
9. Ramp handrails must be 1-1/4 to 1-½ inches in diameter. [NCAC 5.4.2(1)]

### **IV. DOORS AND DOORWAYS - NCAC 7.1**

1. Doors must have a minimum clear opening of 32 inches when the door is in the full open position (door open 90°). [NCAC 7.2.1 and NFPA 101 7.2.1.2.4]
2. Framed glass doors are required to have a 7 ½ inch bottom rail or kick-plate which cannot transfer any force to the glass. [NCAC 7.4.1]
3. The distance between two consecutive doors that swing in the same direction must be at least 48 inches plus the width of the widest door swinging into the space. [NCAC 7.3.3.1]

4. Passage doors with latching hardware must be equipped with operating hardware devices that does not require twisting, tight grasps, or any wrist action such lever handle and push/pull latch. [NCAC 7.9.1.1]
5. Textured surface is required on door handles leading to areas hazardous to people visually challenged or blind (i.e., boiler rooms, electrical equipment rooms, stages, loading docks or platforms, etc.). [NCAC 7.10.1]
6. Door opening force to open:
  - 6.1 Exterior doors if air pressures require stronger closers may be as great as 8.5 pounds. [NCAC 7.6.2]
  - 6.2 Fire doors minimum allowed by the authority having jurisdiction to ensure proper function. [NCAC 7.6.4]
  - 6.3 Interior doors may be no more than 5 pounds. [NCAC 7.6.1]
7. Vision panels in corridor doors must have the lower edge no higher than 40 inches above the finished floor. [NCAC 7.5.1]

## **V. STAIRS - NCAC 8.1**

1. Steps in stairs cannot have squared nosing. [NCAC 8.2.2 and NFPA 101 7.2.2.3.5]
2. Stair handrails must be:
  - 2.1 Mounted **34"** (minimum and maximum) above the nosing with a 12-inch horizontal extension at the top landing and continue sloping down one tread's width at the bottom landing and then continue for an additional 12" horizontally. [NFPA 101 7.2.2.4.4.2, NFPA 101 7.2.2.4.4.10, NFPA 101 fig. A.7.2.2.4.4 "Elevation View", NCAC 8.3.2, and 8.3.3]
3. Handrail extension, at the top or bottom, must not create a hazard and must be made on the side of a continuing wall or partition. [NCAC 8.3.3]
4. Handrails are to be continuously graspable along their length and not interrupted by newel posts. [NCAC 8.3.6. and 8.3.7, SBC 1007.5.4, and NFPA 101 7.2.2.4.4.7]

## **VI. FLOOR - NCAC 9.1**

1. Floors on a given story must be on a common level throughout or be connected by a ramp in accordance with Chapter 9.1. [NCAC 9.1.2]

## **VII. GRAB BAR REQUIREMENTS – NCAC 11.5**

1. All grab bars shall be 1-1/4 to 1-1/2 inches in width or outside diameter. [NCAC 11.5.1]
2. The clear hand space must be 1-1/2 inches between the inner face of the grab bar and the finished face of the wall or partition. [NCAC 11.5.2]
3. Grab bars must be able to support a 250-pound load applied in any direction along its length. [NCAC 11.5.3]

4. Grab bar must be mounted on each sidewall not less than 33 nor more than 36 inches above finished floor. [NCAC 11.4.3(4)]

## **VIII. TOILETS, TOILET ROOMS, and STALLS - NCAC 11.4.1**

1. On every floor where toilet rooms are provided one toilet room for men and one toilet room for women must have at least one toilet fixture of each type or 2% of the total toilet fixtures. [NCAC 11.1.2]

2. *Type I Standard Stall* NCAC 11.4.1

Shall comply with the following:

- 2.1 A 60 inches minimum clear width and a 56 inches minimum clear depth if a wall hung watercloset is used; or, a 59 inches minimum clear depth if a floor mounted fixture is used. [NCAC 11.4.1(1)]
- 2.2 An outswing, or horizontal sliding, door having a 32 inches minimum clear opening and a 4 inches maximum hinge jamb stile shall be located diagonally opposite the watercloset. [NCAC 11.4.1(2)]
- 2.3 A clear floor space on the pull side of the door having a 42 inches minimum clear aisle width for an approach towards the pull handle; or, 48 inches minimum or any other type of approach. [NCAC 11.4.1(3)]
- 2.4 A grab bar on the sidewall adjacent to the watercloset having a 42 inches minimum length with the horizontal centerline 33 inches minimum to 36 inches maximum above the finished floor. The far end of the bar shall be 12 inches maximum from the finished face of the wall behind the fixture. [NCAC 11.4.1(4)]
- 2.5 A rear wall grab bar having a 36 inches minimum length and located 6 inches maximum from the sidewall adjacent to the watercloset. Height above the finished floor shall be the same as the sidewall grab bar. [NCAC 11.4.1(5)]

3. *Type II Standard Stall* 11.4.2

Shall comply with the following:

- 3.1 A 60 inches minimum width. [NCAC 11.4.2(1)]
- 3.2 An inswing, or horizontal sliding, door located at the forward end of the stall having a 32 inches minimum clear opening. [NCAC 11.4.2(2)]
- 3.3 A 92 inches minimum clear length if a wall hung watercloset is used; or, a 95 inches minimum clear length if a floor mounted watercloset is used. [NCAC 11.4.2(3)]
- 3.4 Sidewall and rearwall grab bars shall comply with NCAC 11.4.1(4) and 11.4.1(5).

4. In addition to a Type I or Type II Standard Stall NCAC 11.4.3

If six or more watercloset stalls are provided in any toilet room, then a stall complying with the following shall also be provided:

- 4.1 *A 36 inches wide stall having a 66 inches minimum depth* if a wall hung

watercloset is used; or, a 69 inches minimum depth if a floor mounted watercloset is used. [NCAC 11.4.3(1)]

- 4.2 A self-closing outswing, or horizontal sliding, door having a 32 inches minimum clear opening and located at the stall front. [NCAC 11.4.3(2)]
- 4.3 An approach to the door that complies with 11.4.1(3). [NCAC 11.4.3(3)]
- 4.4 One grab bar having a 42 inches minimum length on each side of the stall. Each grab bar shall be located 12 inches maximum from the finished face of the rear wall and both horizontal centerlines shall be 33 inches minimum to 36 inches maximum above the finished floor. [NCAC 11.4.3(4)]
- 5. NCAC compliant TOILET ROOM must:
  - 5.1 Provide 60" by 60" clear floor space, 60" diameter turning circle or a "T" shaped configuration which is 60" square with 36" x 60" arms in toilet room whether group or individual. [NCAC 11.3.1]
  - 5.2 The swing of a toilet room entry door may overlap the minimum clear floor area by a maximum of 12 inches. [NCAC 11.3.2.2]
  - 5.3 Where floor space is limited, toe space of not less than 6" deep and 9" high under toilets and cabinets may be permitted to supplant a part of the required floor space. [NCAC 11.3.1.2]
  - 5.4 Have an out-swinging door which provides a minimum clear opening of 32 inches when the door is in the full open position (door open 90°) or for in-swinging doors configured such that a partition or wall located adjacent to the strike jamb on the pull side of an interior or exterior door must not be less than 12 inches (for doors swinging away from the person) or 18 inches (if the door needs to be pulled in towards the person) from the jamb, respectively. [NCAC 7.2.1 and NCAC 7.3.1]
- 6. An accessible watercloset shall comply with the following:
  - 6.1 The centerline shall be 18 inches from the adjacent sidewall. The height to the top of the seat shall be *17 inches minimum to 19 inches maximum*. If a contoured seat is used, then the height to the top shall be measured at the forward one-third of the seat. [NCAC 11.6.1(1)]
- 7. All grab bars must comply with NCAC 11.5.
- 8. Accessible lavatories must have:
  - 8.1 Clear FLOOR SPACE of 30 inches wide by 48 inches long in front of the sink and extend at maximum of 19 inches under the lavatory. [NCAC 11.6.2(3)]
  - 8.2 Lavatory rim must be 34" maximum above the finished floor providing clear KNEE SPACE of at least 29". [NCAC 11.6.2(1)]
  - 8.3 Clear KNEE SPACE of 8" deep at 27" minimum above the finished floor ("*Accessible Lavatory*"). Toe space must be 6" deep and 9" high minimum. [See Fig. 11.6.2]
- 9. Lavatory water activation must not require a tight grasp, pinching motion, or wrist twisting motion (i.e. lever, blade, automatic, etc.). [NCAC 11.6.2(6)]

10. For NCAC compliance, hot water supply and drain lines must be protected to prevent accidental burns when the water supply temperature is 120°F or higher. [NCAC 11.6(5)]
11. Urinals must have a 14 inch minimum elongated bowl with rim located a maximum of 17 inches above the finished floor. [NCAC 11.6.3(1) and 11.6.3(2)]
12. Lavatory mirrors, when provided, are placed no higher than 40" above the finished floor. [NCAC 11.7.1]
13. Where provided the top surface of shelves must be within 40 inches of the floor. [NCAC 11.7.2]
14. If towel bars, dispensers and other toilet accessories, coin slots, operating mechanisms, etc. are provided, they must be a maximum height of 48 inches above the finished floor. [NCAC 11.7.3(1)]

## **IX. BATHTUBS - NCAC 12.1**

1. NCAC accessible compliant bathtubs:
  - 1.1 SIDE APPROACH bathtubs with an in-tub seat must have clear floor space of 60" by 30" parallel to the tub. [NCAC 12.4.2.1]
  - 1.2 FRONT APPROACH bathtubs with an in-tub seat must have clear floor space of 60" by 48" perpendicular to the bathtub. [NCAC 12.4.2.2]
  - 1.3 SIDE APPROACH bathtubs with an in-tub seat at the HEAD OF THE TUB must have clear floor space of 75" by 30" parallel to the tub. [NCAC 12.4.3.1]
  - 1.4 FRONT APPROACH bathtubs with an in-tub seat at the HEAD OF THE TUB must have clear floor space of 75" by 48" perpendicular to the bathtub. [NCAC 12.4.3.2]
  - 1.5 An in-tub seat which can support 250 pounds must be provided at the head of the tub and shall be 15" wide minimum. [NCAC 12.4.1.5]
2. Grab bar location and mounting heights [NCAC 12.4.6]
  - 2.1 CONTROL END WALL – one grab bar 24" long with its forward end near the open end; the horizontal centerline 33"-36" above the finished floor. [NCAC 12.4.6.1]
  - 2.2 WALL PARALLEL TO TUB – (a) built-in or built-up seat opposite control wall: 2 parallel grab bars 48" minimum with one end 12" from the control end wall, or (b) in-tub seat: 2 parallel grab bars 24" minimum with one end 12" from the control end wall, and (c) for either type of seat and either size grab bar: the lower bar's centerline must be 9" above floor rim of tub and the upper bar's centerline between 33" and 36" above finished toilet floor. [NCAC 12.4.6.2 (1), (2), and (3)]
  - 2.3 END WALL OPPOSITE THE CONTROL WALL
    - a) Built-up or built-in seat directly opposite control wall no handrail shall be required. [NCAC 12.4.6.3(1)]
    - b) In-tub seat needs one 12" long grab bar, with forward end near the open end of tub, with centerline between 33" and 36" above finished floor. [NCAC 12.4.6.3(2)]

## **X. SHOWERS - NCAC 12.3**

1. On every floor and each site where showers or bathtubs are provided, each public or common use bathing facility shall have a minimum of one shower stall or one bathtub

that complies with this Chapter (see, also, 1.2.11). [NCAC 12.1.1]

2. Doors **may** be used **only** with roll-in type shower enclosures, must have 36 inches minimum clear opening, and must always swing out or be sliding or folding type door. [NCAC 12.1.3.1]
3. Shower enclosures must have a non-slip finished floor surface. [NCAC 12.1.5]
4. Transfer-type showers may have a maximum 1/2 inch high curb or threshold for water retention. Roll-in showers shall not have a curb or threshold. [NCAC 12.1.6]
5. A flexible, hand-held shower spray having a 60 inches minimum length shall be provided. The spray unit shall serve as a fixed shower head and a hand-held shower. The spray unit shall be located on the centerline of the control wall. [NCAC 12.2.5]
6. Pre-fabricated or pre-manufactured shower enclosures may be used, provided they conform to the NCAC or are certified that they conform to ANSI A117.1. [NCAC 12.1.9]
7. If a seat is provided for a roll in showers, then it shall be folding type and comply with NCAC 12.2.2(1) and (2), and NCAC 12.3.2.4.

#### **XI. DRINKING FOUNTAINS AND WATERCOOLERS - NCAC 13.1**

1. Where provided, drinking fountains and/or water coolers must have up spout and up front controls and spouts; and water stream must rise at least four inches above the spout. [NCAC 13.1.2 and 13.1.3]
2. Spouts shall be 36 inches maximum above the finish floor or ground level measured from the spout outlet. [NCAC 13.1.4]
3. Fully cantilevered and wall mounted fountains must have a minimum of 27 inches for knee space. [NCAC 13.2.3]
4. The clear floor space required at a drinking fountain must be a minimum of 30 inches wide by 48 inches long. The long dimension must be parallel to the direction of approach. [NCAC 13.2.1]

#### **XII. ELEVATORS - NCAC 15.4**

1. An elevator is required for this building by TCA 68-120-204(a)(1) and / or NCAC 15.2.
2. Limited Use/Limited Application (LULA) elevators may not be used. [TCA 68-120-204, Rule 0620-2-3-.02, and Rule 0780-2-2-.01(1)(b) - - ASME A117.17b is NOT a referenced standard in Chapter 2 of the 2003 NFPA 1]
3. Cabs with center opening doors shall have an 80 inches minimum width and a 51 inches minimum depth. The depth of the cab from the inside face of the cab doors to the wall opposite shall be 54 inches minimum (Figure 22(a)). [NCAC 15.4.1]
4. Cabs with side-slide doors shall have a 68 inches minimum width and a 51 inches minimum depth. The depth of the cab from the inside face of the cab door(s) to the wall opposite shall be 54 inches minimum (Figure 22(b)). [NCAC 15.4.2]

5. Elevator cab controls must meet the following:
  - 5.1 Elevator cab control floor buttons must be a maximum of 54 inches above the cab floor for a side approach and maximum of 48 inches for a front approach. [NCAC 15.9.2]
  - 5.2 Emergency controls must be a maximum of 35 inches above the cab floor. [NCAC 15.9.3]
  - 5.3 Control buttons must be a minimum of 3/4 inch in their smallest dimension. [NCAC 15.9.4]
  - 5.4 Control buttons shall be designated by standard alphabet letters, Arabic numerals, or standard symbols as required in **ANSI/ASME A17.1-1996** and located to the left of the corresponding control button. [NCAC 15.9.5]
  - 5.5 Visual and audible car position indicators must be provided to sound at each floor. [NCAC 15.9.6.1]
6. A platform wheelchair lift may be used in lieu of an elevator when complying with NCAC 15.11.1.1.
7. Wheelchair platforms must conform to the following:
  - 7.1 The minimum clear platform for a wheelchair lift must be 30 inches by 48 inches. [NCAC 15.11.2.5]
  - 7.2 A wheelchair lift platform must have a maximum clear floor area of 18 square feet. [NCAC 15.11.2.6]
  - 7.3 Vertical travel distance cannot exceed 12 feet. [NCAC 15.11.2.9]
  - 7.4 Wheelchair lift platform must have a non-slip finished surface and have an automatically retractable access ramp/guardrail. [NCAC 15.11.2.7]
  - 7.5 Platforms must have solid guardrails that are a minimum of 42 inches high. [NCAC 15.11.2.8]

### **XIII. RESIDENTIAL - NCAC 30 and 29**

1. In no instance shall handicapped units be segregated from other units within the project. [NCAC 30.3.1 and 29.2.1]
2. In hotels, motels, and other transient residential facilities, accessible guestrooms must be equipped with a visual fire alarm signaling device in addition to any audible appliance. [NFPA 101 9.6.3]
3. If alarm indicating appliances are provided, then audible and visual appliances complying with this Chapter shall be installed. [NCAC 17.1.1, 29.5.3, and 29.5.3.1.3]
4. Accessible kitchens must comply with NCAC 30.4.4.1.1 and 30.5.4.1.1.

### **XIV. ASSEMBLY SEATING - NCAC 22.1**

1. General requirements
  - 1.1 In places of assembly with fixed seating, accessible seating for persons in wheelchairs shall be provided in compliance with the following table: NCAC 22.1.1.



- 1.2 Spaces designated for use by persons in wheelchairs shall not be located directly on the sloping or stepped parts of the floor area but shall be on level areas or platforms having dimensions as specified in NCAC 22.3. Floor surfaces at accessible seating locations shall comply with Chapter 9. Wheelchair seating spaces shall not reduce the required aisle width. [NCAC 22.1.1.1]
2. All wheelchair seating must have access by an accessible route to performing areas (i.e., stages, arena floors, dressing and locker rooms, etc.) used by performers, entertainers, athletes, etc. [NCAC 22.1.4]
3. Wheelchair space requirements:
  - 3.1 FRONT or REAR APPROACH must have a space 33" by 48" long. [NCAC 22.3.1(1)]
  - 3.2 SIDE APPROACH must have a space 33" by 60" long. [NCAC 22.3.1(2)]
4. Listening aids and devices must be installed in accordance with NCAC 22.4.1]

**XV. INSTRUCTIONAL FACILITIES, DINING HALLS, LIBRARIES, ETC. - NCAC 21.1, 23.1, 25.1, and 26.1**

1. Where fixed tables, workstations, etc. are used (e.g., lecture and dining halls, science laboratories, kitchens, etc.) at least one (or 5% of total) must be designated for accessibility. [NCAC 21.1.1, 23.1.2, 25.1.1, and 26.1.1]
2. All libraries with fixed facilities must meet accessibility requirements. [NCAC 25.1.1 and 25.1.2]
3. The clear width between book stacks shall be 36 inches minimum. Shelf height in Book stack areas shall not be restricted. [NCAC 25.2.1 and 25.2.2]
4. Accessible check-out aisles shall have a minimum 36 inches clear width. [NCAC 26.3.2.1]
5. Accessible counters shall have the top surface at 38 inches maximum above the finished floor. The top of the rim or lip shall be located 40 inches maximum above the finished floor. [NCAC 26.3.2.1 and 26.3.2.2]